FX3U-FX3GC/FX3U-4AD-TC-ADP SERIES USER'S MANUAL

1. Overview

1.1. Incorporation of Terminals

Verify that the following products and items are included in the package:

- Product: FX3U-4AD-TC-ADP or Type 2 Thermocouple Analog Adapter

1.2. External Dimensions, Part Names, and Terminal Layout

<table>
<thead>
<tr>
<th>Product</th>
<th>FX3U-4AD-TC-ADP</th>
<th>Type 2 Thermocouple Analog Adapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model Code</td>
<td>JY997D45401</td>
<td>JY997D31301</td>
</tr>
<tr>
<td>Dimensions</td>
<td>3.6 x 17 x 37 mm</td>
<td>2.9 x 12.5 x 23 mm</td>
</tr>
<tr>
<td>Weight</td>
<td>0.1 kg (2.2 lbs)</td>
<td>0.1 kg (2.2 lbs)</td>
</tr>
</tbody>
</table>

1.3. Connection Method

- Turn off the power. (Refer to the following example).

This section describes the connection method to the PLC (FX3U Series PLC is used for the following example).

2. Installation

2.1. Installation Precautions

- Use the product within the generic environment specifications described in PLC user’s manual (This manual).
- Do not connect on the left side of any special adapter, maintenance of on-site equipment, start-up test run or repair (Replace by the user).
- Remove the special adapter cover when using the special adapter.

2.2. Connection to the PLC

- Use Type 2 Thermocouple Analog Adapter for the following PLCs:
  - FX3U-32MR/ES
  - FX3U-32MR/ES2
  - FX3U-64MR/ES
  - FX3U-64MR/ES2
  - FX3U-32MR/ES3
  - FX3U-32MR/ES4
  - FX3U-32MR/ES5
  - FX3U-32MR/ES6

3. Wiring

3.1. Applicable cable and terminal tightening torque

1) Wire size: 26 AWG

The torque for tightening and terminal tightening is shown in the following table.

<table>
<thead>
<tr>
<th>Terminal Size</th>
<th>3.5 mm² (0.06&quot;&quot;)</th>
<th>6 mm² (0.1&quot;&quot;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>M3 screws</td>
<td>0.1 N·m</td>
<td>0.4 N·m</td>
</tr>
<tr>
<td>M4 screws</td>
<td>0.4 N·m</td>
<td>1.0 N·m</td>
</tr>
</tbody>
</table>

4. Performance Specifications

4.1. Input Specifications

- Input type: 2-wire 2 pieces of 0.3 mm² (AWG22)
- Input voltage: 2 to 20 V DC
- Input current: 0 to 10 mA

5. Specifications

5.1. Environmental Specifications

- Temperature: 0°C to 40°C
- Humidity: 5% to 95% non-condensing
- Altitude: Up to 2000 meters

5.2. Mechanical Specifications

- Weight: 0.1 kg (2.2 lbs)
- Dimensions: 3.6 x 17 x 37 mm

5.3. Power Supply Specifications

- Power supply: 24 V DC ± 10%
- Power consumption: 0.5 W

5.4. Diagnostics

- Alarm monitoring: Yes
- Fault monitoring: Yes

5.5. Safety Specifications

- Safety standard: EN 61131-2
- Safety category: 3 PL-nc

6. Accessories

- Terminal cover: JY997D45401 (For FX3U/3G Series)
- Terminal cover: JY997D31301 (For FX3S Series)
**Example of thermocouple wiring**

For product manuals or documents, consult with the Mitsubishi Electric dealer necessary. Always forward it to the end user.

**Safety Precautions**

Proceedures must be followed by knowledgeable persons. This product is not suitable for personal safety.

**Specifications**

**3. Wiring Precautions**

- Wiring must be made by qualified persons, noting the circuit diagram or wiring diagram on the terminal block.

**CAUTION**

- Make sure to follow the specifications described in the manual.
- Do not install the product into heavy equipment or machinery.
- Do not install the product into a location where it will be exposed to rain or wind.
- Make sure to follow the specifications described in the manual.

**Installation Precautions**

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**INSULATION**

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**4. Performance Specifications**

**CAUTION**

- Make sure to follow the specifications described in the manual.
- Do not install the product into heavy equipment or machinery.
- Do not install the product into a location where it will be exposed to rain or wind.
- Make sure to follow the specifications described in the manual.

**Note:** This symbol mark is for China only.

**Additional Precautions**

**For safe use**

- Do not connect a high-speed I/O special adapter on the left side of any three-wire I/O special adapter.

**Connectors precautions**

- Contact all the high-speed (0) special adapters before connecting a higher-speed special adapter after they are used. Connections may be impossible if they are not aligned correctly.

**For detailed of connecting a lead wire, refer to Section 2.3**

**2. Application**

- Do not connect a high-speed I/O special adapter on the left side of any three-wire I/O special adapter.

**For safe use**

- Do not connect a high-speed I/O special adapter on the left side of any three-wire I/O special adapter.
3.3 Selection of thermocouple

- Compensating lead

Indicates that incorrect handling may cause hazardous conditions or physical damage. Indicates that incorrect handling may cause hazardous conditions or physical damage.

Effective July 2018

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Failure to do so may cause equipment failures or malfunctions. Make sure to save the following precautions in order to prevent equipment failures and malfunctions under the influence of noise. Do not bundle the power line into the same cable as high-voltage line or load electrical systems.

Failure to do so may cause fire, equipment failures or malfunctions.

Never use the product in areas with excessive dust, oily smoke, conductive dusts, or at high altitude. Never use the product under the influence of noise. Do not bundle with the product with the above-mentioned conductive materials.

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